

Allergic Contact Dermatitis Caused by Naproxen Gel

Allergic Contact Dermatitis Caused by Naproxen Gel
Acil Tıp

Başvuru: 22.05.2013
Kabul: 08.02.2014
Yayın: 07.03.2014

Özgür Dikme¹, Özlem Dikme¹, Hakan Topaçoğlu¹

¹ İstanbul Eğitim ve Araştırma Hastanesi

Özet

Naproxen sodyum jel, sık kullanılan, lokal etkili anti inflamatuvar bir ilaçtır. Birçok kas iskelet sistemi probleminde direkt olarak cilt üzerine uygulanır. Naproxen sodyum jel, spor yaralanmalarında, minör gerilmeler, gerilme ve kontüzyonlar ve romatolojik hastalıklara bağlı akut ağrılarda ağrıyı kesmek amacıyla kullanılmaktadır. Yazımızda naproxen sodyum jel kullanımı sonrasında acil servise büllöz kontakt dermatit nedeniyle başvuran bir olguyu sunduk. Topikal non steroidal anti inflamatuvar ağrı kesiciler ağrı yönetiminde sıklıkla kullanılmaktadırlar. Kullanımları güvenlidir ve nadiren yan etkiye neden olurlar. Ancak, naproxen sodyum jel kullanımına bağlı ciddi ve geniş dermatolojik döküntülerin gelişebileceği bilinmektedir. Hastalar, hayatı tehdit edici komplikasyonlarını önlemek amacı ile bu ilaç hakkında detaylı bir şekilde bilgilendirilmelidirler.

Anahtar kelimeler: *Naproxen sodyum jel, Allerjik kontakt dermatit Acil servis*

Abstract

Naproxen sodium is used in topical, oral and parenteral forms for the treatment of inflammatory and degenerative disorders of the musculoskeletal system. Topical form Naproxen gel is applied directly to the skin, offering pain relief in various musculoskeletal problems. In this case report, we describe a patient who admitted to the emergency department with bullous contact dermatitis caused by naproxen gel. She was treated with intravenous H1-H2 receptor blockers and metilprednisolon(1 mg/kg). Naproxen sodium gel was discontinued and the patient was transferred to the dermatology department. Although transdermal route is generally safe, topical use of naproxen sodium can cause serious and widespread dermatological rashes. The patients should be called to control in order to prevent life-threatening complications.

Keywords: *Naproxen sodium gel, Allergic contact dermatitis Emergency department*

Introduction

Naproxen sodium is a cyclooxygenase unselective non-steroidal antiinflammatory drug (NSAID). It is used in the treatment of inflammatory and degenerative disorders of the musculoskeletal system which is widely prescribed for the treatment of osteoarthritis, rheumatoid arthritis, ankylosing spondylitis, gout, extra-articular disorders, bursitis, tendinitis and non articular rheumatic condition. The extensive use of prescribed and over the counter NSAIDs associated with significant adverse effect profiles has prompted the search over recent years for solutions to this problem. For patients with chronic pain involving limited areas of the body, they might not have to expose themselves to the toxicities of oral NSAIDs¹⁻³.

Topical form Naproxen gel is a popular, over the counter NSAID, applied directly to the skin, offering pain relief in various musculoskeletal problems and frequently used in field of rehabilitation including: acute pain due to minor strains, sprains and contusions, rheumatologic rehabilitation and sports medicine³.

We describe a patient who admitted to the emergency department (ED) with bullous contact dermatitis caused by naproxen gel.

Case Report

A 64 year old female patient with hypertension and chronic renal failure presented to the ED with pruritic rash on the right arm. She fell three days before and admitted to the ED with pain on the right shoulder. A physician have examined her and diagnosed by soft tissue trauma. Naproxen sodium gel was initiated. Following apply gel to the right arm, swelling and erythema occurred (causing pruritus), which progressed steadily. Upon the ED admission (at fourth day), she has bullous, partially eroded and hemorrhagic lesions on an erythematous base on the right arm (Figure 1).



Figure 1

Bullous, partially eroded and hemorrhagic lesions on an erythematous base on the right arm

Her vital signs were normal. Other physical examination was normal. She was treated with intravenous H1-H2 receptor blockers for supportive therapy and metilprednisolon (1 mg/kg). Naproxen sodium gel was discontinued and the patient was transferred to the dermatology department.

Discussion

Oral therapy of NSAIDs is very effective, but the clinical use is often limited because NSAIDs are associated with potential adverse gastrointestinal (irritation and ulceration), renal, hepatic and cardiovascular effects ¹. The transdermal route has many advantages for the administration of drugs for local and systemic therapy. Therefore many clinicians use topical NSAIDs for their prominent analgesic and anti-inflammatory properties ². In recent years a growing number of topical NSAIDs have become available. The study by Thorling J. et al. suggest that naproxen gel offers an effective and convenient alternative to systemic NSAIDs for patients where side-effects are to be avoided or when oral administration is undesirable ³. There are many studies that suggest topical NSAIDs are very effective and safe in treating acute and chronic painful conditions ^{4,5}. Potential adverse reactions can be divided into cutaneous reactions and systemic reactions. The rate of systemic adverse reactions, in particular gastrointestinal events, is not well defined, but it is clear that reactions such as gastric irritation, asthma and renal impairment, well established complications of oral therapy, still occur with topical agents. Cutaneous adverse reactions occur in 1 to 2% of patients ⁶ with erythema, pruritis, irritation, sensation of heat or burning and contact dermatitis being most commonly reported ^{7,8} but tend to be self-limiting. In this case, dermal lesions are growing and not tend to be self-limiting because the patient continues to use naproxen gel. Drugs like topical NSAIDs can cause severe and life-threatening adverse events because they are used for long term treatment. Topical ketoprofen and etofenamate is the most common reasons ⁹. But in our case, naproxen sodium is the reason of allergic lesions. In many patients, the non active components of the formulation are responsible for allergic reactions.

Case reports on allergic contact dermatitis caused by naproxen gel in the ED are extremely rare. But clinicians should be aware about local and systemic adverse effects of topical NSAIDs. It is important to consider allergic

contact dermatitis due to naproxen sodium when a patient with bullous dermatitis has a history of use of naproxen sodium gel.

Although transdermal route is generally safety, topical use of naproxen sodium can cause serious and widespread dermatological rashes. The patients should be called to control in order to prevent life-threatening complications.

References

1. Roth SH. Coming to terms with nonsteroidal anti-inflammatory drug gastropathy. *Drugs*. 2012;72:873-9.
2. Flores MP, Castro AP, Nascimento Jdos S. Topical analgesics. *Rev Bras Anesthesiol*. 2012;62:244-52.
3. Thorling J, Linden B, Berg R, Sandahl A. A double-blind comparison of naproxen gel and placebo in the treatment of soft tissue injuries. *Curr Med Res Opin*. 1990;12:242-8.
4. Mason L, Moore RA, Edwards JE, Derry S, McQuay HJ. Topical NSAIDs for acute pain: a meta-analysis. *BMC Fam Pract*. 2004;5:10.
5. Moore RA, Tramèr MR, Carroll D, Wiffen PJ, McQuay HJ. Quantitative systematic review of topically applied non-steroidal anti-inflammatory drugs. *BMJ*. 1998;316:333-8.
6. De Benedittis G, Lorenzetti A. Topical aspirin/diethyl ether mixture versus indomethacin and diclofenac/diethyl ether mixtures for acute herpetic neuralgia and postherpetic neuralgia: a double-blind crossover placebo-controlled study. *Pain* 1996;65:48-53.
7. Schapira D, Linn S, Scharf Y. A placebo-controlled evaluation of diclofenac diethylamine salt in the treatment of lateral epicondylitis of the elbow. *Curr Ther Res* 1991;49:162-8.
8. Pigatto PD, Mozzanica N, Bigardi AS, et al. Topical NSAID allergic contact dermatitis Italian experience. *Contact Derm* 1993;29:39-41.
9. European Multicentre Photopatch Test Study (EMCPPTS) Taskforce. A European multicentre photopatch test study. *Br J Dermatol*. 2012;166:1002-9.

Information Presentation

7th European Congress on Emergency Medicine 3rd October-6th October 2012, Antalya, Turkey